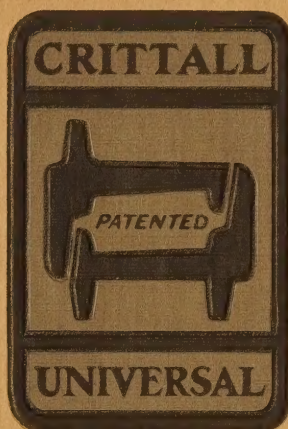


CRITTALL

UNIVERSAL CASEMENTS



CATALOG
22

JOHN H. BRODT
103 W. MONROE ST.
TEL. DEARBORN 7653 CHICAGO

CRITTALL
CASEMENT WINDOW COMPANY
DETROIT, U. S. A.

Crittall Universal

Solid Steel and Bronze

Casement Windows of Quality



[Catalog No. 22]

Crittall Casement Window Company *Manufacturers and Importers*

Main Office: Detroit, Michigan

Works: Detroit, Michigan; Braintree, England

New York Office: 101 Park Avenue

Atlanta Office: 904 Healy Building

Cincinnati Office: 209 Gerke Building

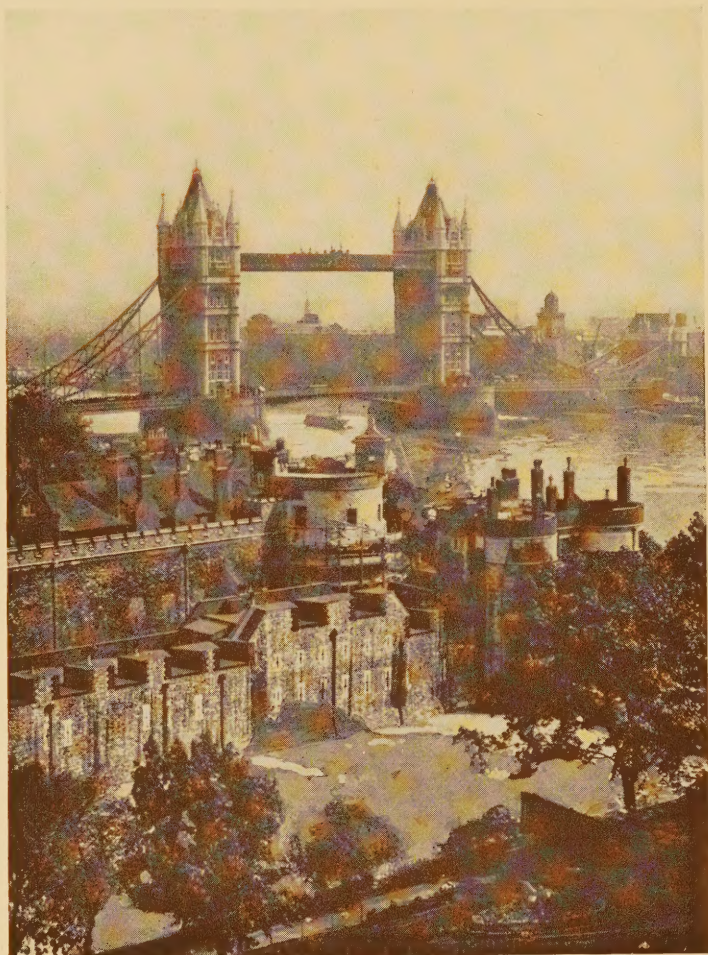
Kansas City Office: 214 Massachusetts Building

Chicago Office: Peoples Gas Building

Cleveland Office: Builders Exchange

Agents in all principal cities

105 W. MONROE ST.
TEL. DEARBORN 7653 CHICAGO



CASEMENT WINDOWS



IMAGINE Romeo wooing his Juliet at any but a casement window! Poetry takes flight at the very thought! The subject of casement windows is interwoven with the beauty and romanticism of the middle ages, but their origin is lost in the mist of time. Their appearance in England, however, is fairly well placed in the fourteenth century.

They were, at first, very crude and of heavy construction, with apparently no lights. But soon came to fill the need of a substance to admit light yet keep out the moisture and cold. Improvements steadily continued through the fourteenth, fifteenth and sixteenth centuries until, in the Tudor period, metal casement windows with leaded glass were developed to their full beauty, the work of the smiths during this period being most interesting and remarkable.

Following the Tudor period came a long dormant period for this construction, and only in the more imposing and artistic buildings was it employed. Whixley Hall, near York, and Guiseley Rectory, near Leeds, are examples in the seventeenth century. The castles of the time, built for strength and for beauty, contained no other but this style of aperture.

At this time they were naturally used only for domestic and ecclesiastical buildings. The frames were constructed of a flat bar section setting directly into stone or roughhewn timber rebates and swinging on a crude form of pivot hinge. Weather-tightness as we understand it must have been conspicuous by its absence and the only merit they possessed was no doubt the artistic handicraft work of the smith in fashioning the stays, handles and handle plates, of which quite a number of very fine examples still exist.

Although these casements were not larger than 18 inches by 36 inches it was necessary to support the leaded glass by providing saddle bars which were riveted to the frame and the leaded glass wired to the bars. Without question, even today, the lead glazed casement expresses beauty and the artistic.

Through all the years, down to the present age, though they have not been in common use, casement windows have held their own where architectural beauty has been considered.

Modern casement construction follows closely the development of the iron and steel industry, more especially as improvements were made in the art of rolling. This period was about the middle of the nineteenth century when

rolled sections were first used. However, for many years the use of steel casement windows was confined to residences, ecclesiastical and monumental buildings.

The casements at this time were constructed principally of angle and tee sections, providing only a single contact.

With the further progress in the rolling of shapes, the Universal sections were invented and this opened up an entirely new field for the use of steel casement windows. This development made possible a combination of several units in a single wall opening such as are common in banks, office buildings, hospitals, department stores, court houses, etc.

Alwyn T. Covell speaks of the difficulty of reconciling double-hung windows with certain types of architecture, especially when the glazing is

“the uncompromisingly blank expanse of a single pane of glass,” and adds that the wide use of the double-hung window is due largely to a misconception of the casement window, which is often thought of as “picturesque but impracticable.” The latter, in truth, is strikingly practical. It has ten distinct utility points, aside from its beauty. These are:

<i>Permanency</i>	<i>Ventilation without draft</i>
<i>Low upkeep</i>	<i>Maximum daylight</i>
<i>Weathertight</i>	<i>Never rattle</i>
<i>Fireproof</i>	<i>Do not warp or twist</i>
<i>Easy to operate</i>	<i>Cannot stick</i>

The picturesque in buildings owes much to the use of casement windows. Lovers of art realize this and have always been its staunch adherents. Today the casement window bespeaks good taste and imparts a sense of gentle calm to the surroundings which it adorns.



METHOD A—Cut Stone Details

Casements—Side Hinged, Open Outward



INTERIOR OF BAY IN MATHER RESIDENCE

TOLEDO, OHIO

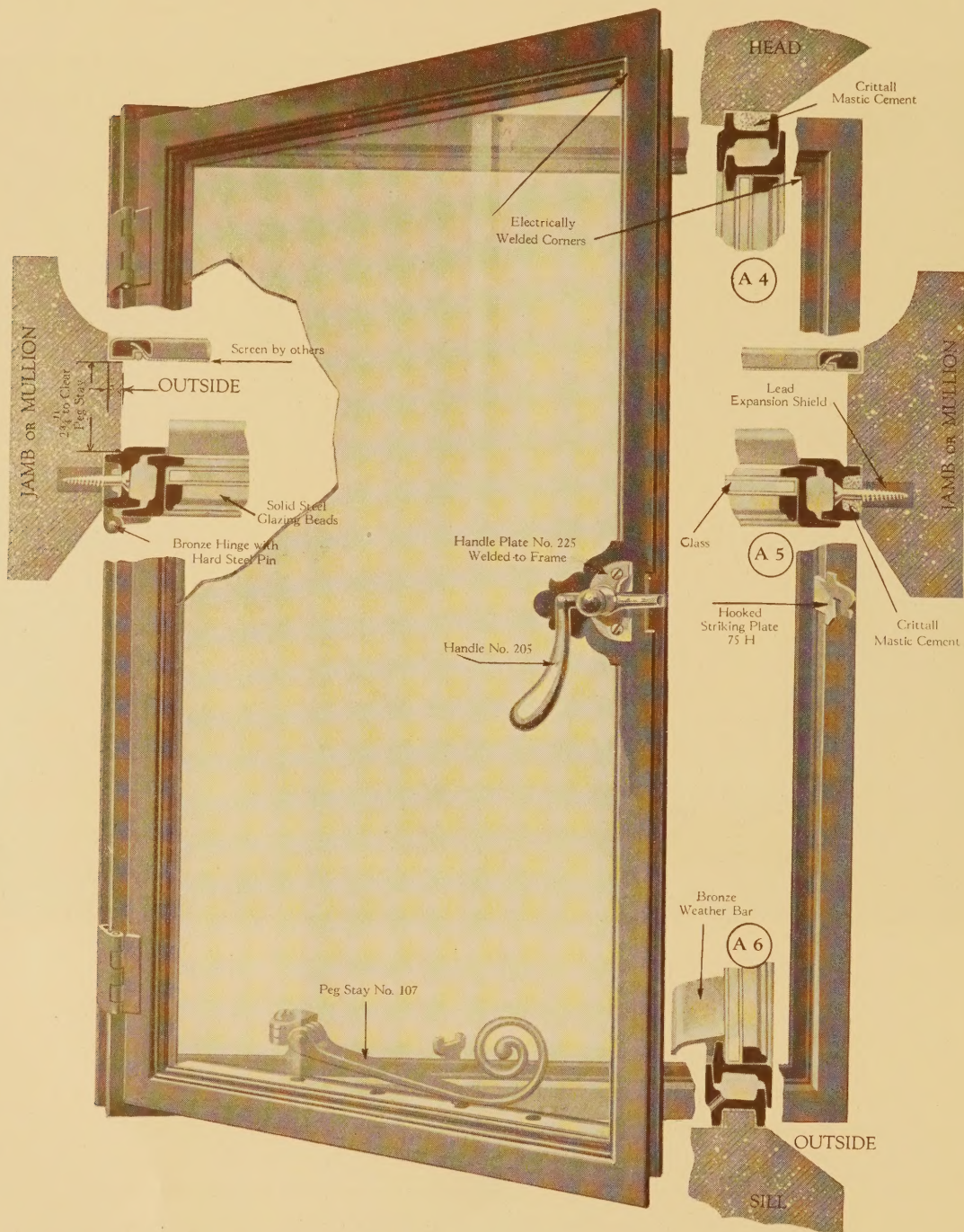
Mills, Rhines, Bellman and Nordhoff, Architects

Outward opening casements may be effectively screened on the inside. Compare the casement with the stationary sash in the photograph and note that the screens do not obstruct the view through the windows.

When the grouping of casements cannot be conveniently arranged for cleaning on upper floors, outward opening casements may be made with cleaning hinges. This hinge throws the casement, when open, 4" clear of hanging side, thus allowing the hand to be passed through to clean the outside of glass.

METHOD A—Cut Stone Details

Casement—Side Hinged, Open Inward



Inward opening casements hinged at the side are almost universally adopted in hot climates in conjunction with external blinds or shutters. The fly screen question leads many architects to believe casement windows must open in,

but as will be seen on the preceding page screens can be satisfactorily applied on the inside and the casement open out. Screens must be set $2\frac{3}{4}$ " from the casement rebate to clear sill hardware and weather bar.

METHOD A—Cut Stone Details

Casements—Side Hinged, Open Inward

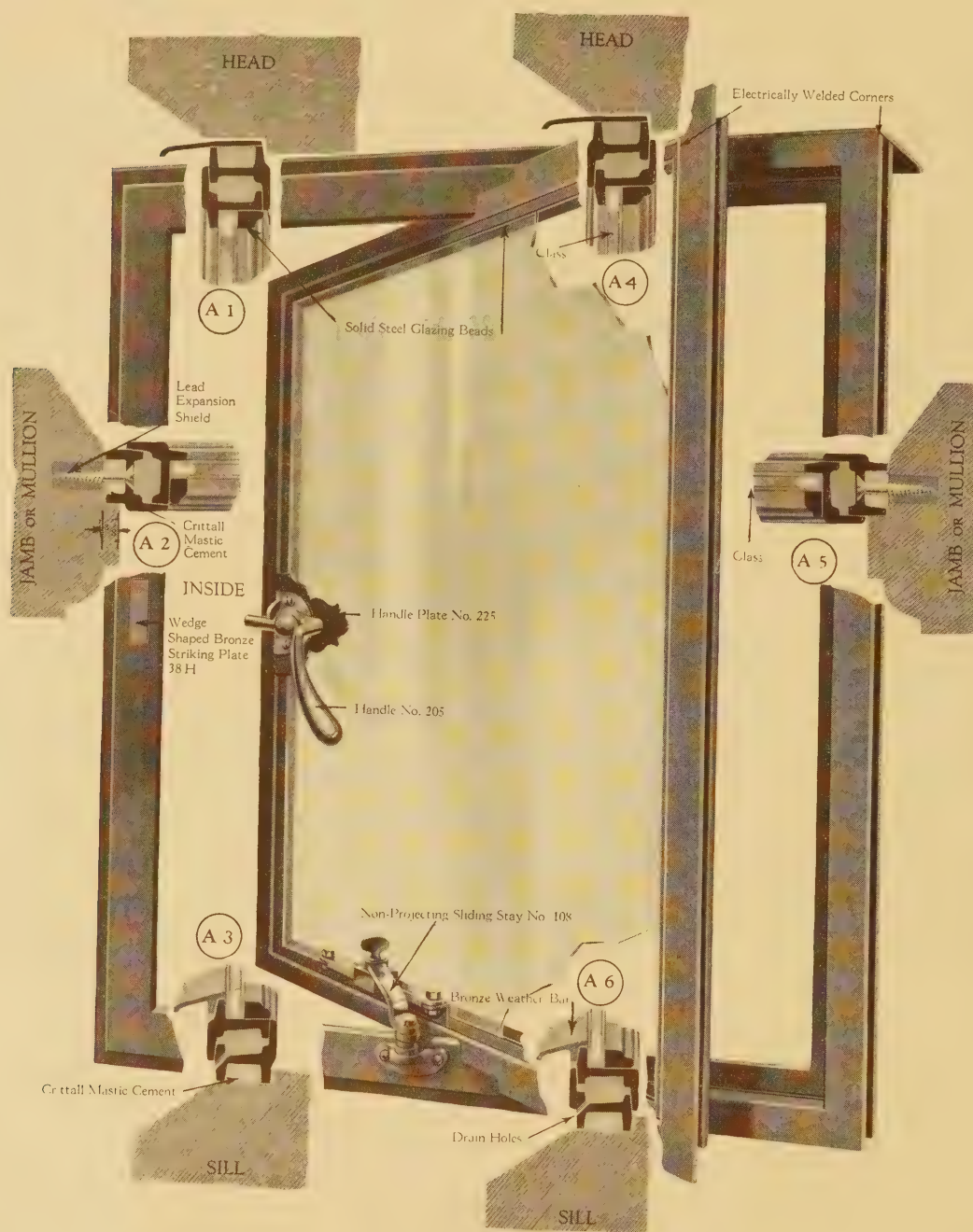


MRS. JACOB W. LOEB'S RESIDENCE
CHICAGO, ILL.
Marshall & Fox, Architects

The above photograph illustrates solid bronze inward opening casements made from sections as shown on the opposite page. Under atmospheric action, these windows have toned down to a beautiful statuary bronze color. The screens are attached directly to stone on the outside, but occasionally, although not part of our standard equipment, eyes are attached to the casements to engage hooks supplied by the screen contractor.

METHOD A—Cut Stone Details

Casement—Vertically Pivoted



The Universal (patented) Casement is the only solid double-weather center-hung casement that is made; other systems either provide single weathering on the inward opening portion or else are built up of various sections screwed or riveted together. Another method is to join each swinging bar in the center, thus weakening the frame where its maximum strength is required.

In the Universal Casement the weathering is **MILLED OFF** from the parent section, thus avoiding screws and strips rusting off and (as is frequently the case in single weathered vertical-hung

casements) hinges breaking, allowing casements to fall out. The contact surfaces obtained by milling form a perfect fit, and Crittall center-hung Casements are the only ones with accurate machine-made contacts.

Vertical center-hung casements admit of exceptional facilities for cleaning the outside of glass from inside the room, and are therefore recommended for windows out of reach of usual window cleaners' apparatus.



METHOD A—Cut Stone Details

Casements—Bottom Hinged



EDUCATIONAL
BUILDING,
UNIVERSITY OF
ILLINOIS,

URBANA, ILL.

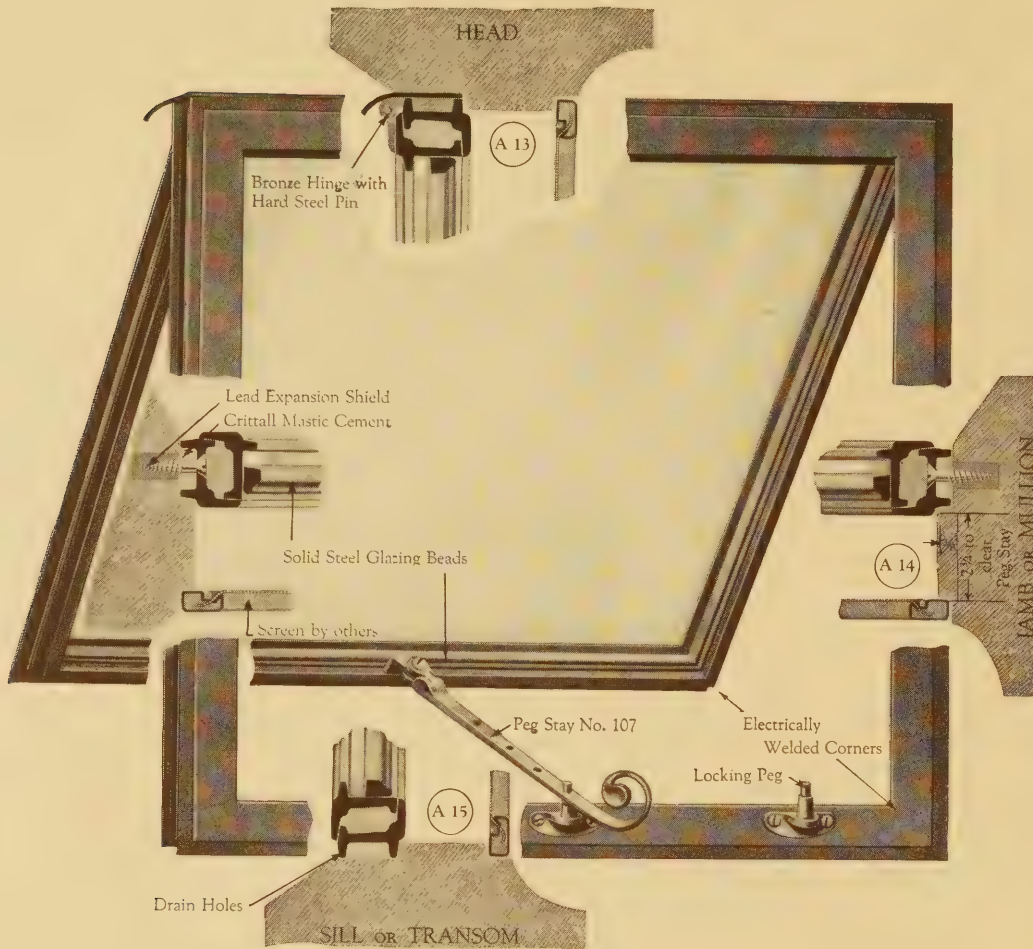
J. M. White, Architect



Interior view of
first floor bay

METHOD A—Cut Stone Details

Transom Casement—Top Hinged, Open Outward



The top hinged casement provides a convenient form of transom ventilation and is used in conjunction with side hinged open out casements below. Peg stay No. 107 as shown is supplied as standard equipment and included in estimates unless other hardware is specified. When screens are in use it is of course necessary to open the casement to full extent.

METHOD A—Cut Stone Details

Casements—Top Hinged, Open Outward



DETAIL OF BAY
SAMUEL FAIRCHILD RESIDENCE
PHILADELPHIA, PA.

Herbert C. Wise, Architect



DETAIL OF BAY
JAMES A. FARRELL RESIDENCE
SOUTH NORWALK, CONN.

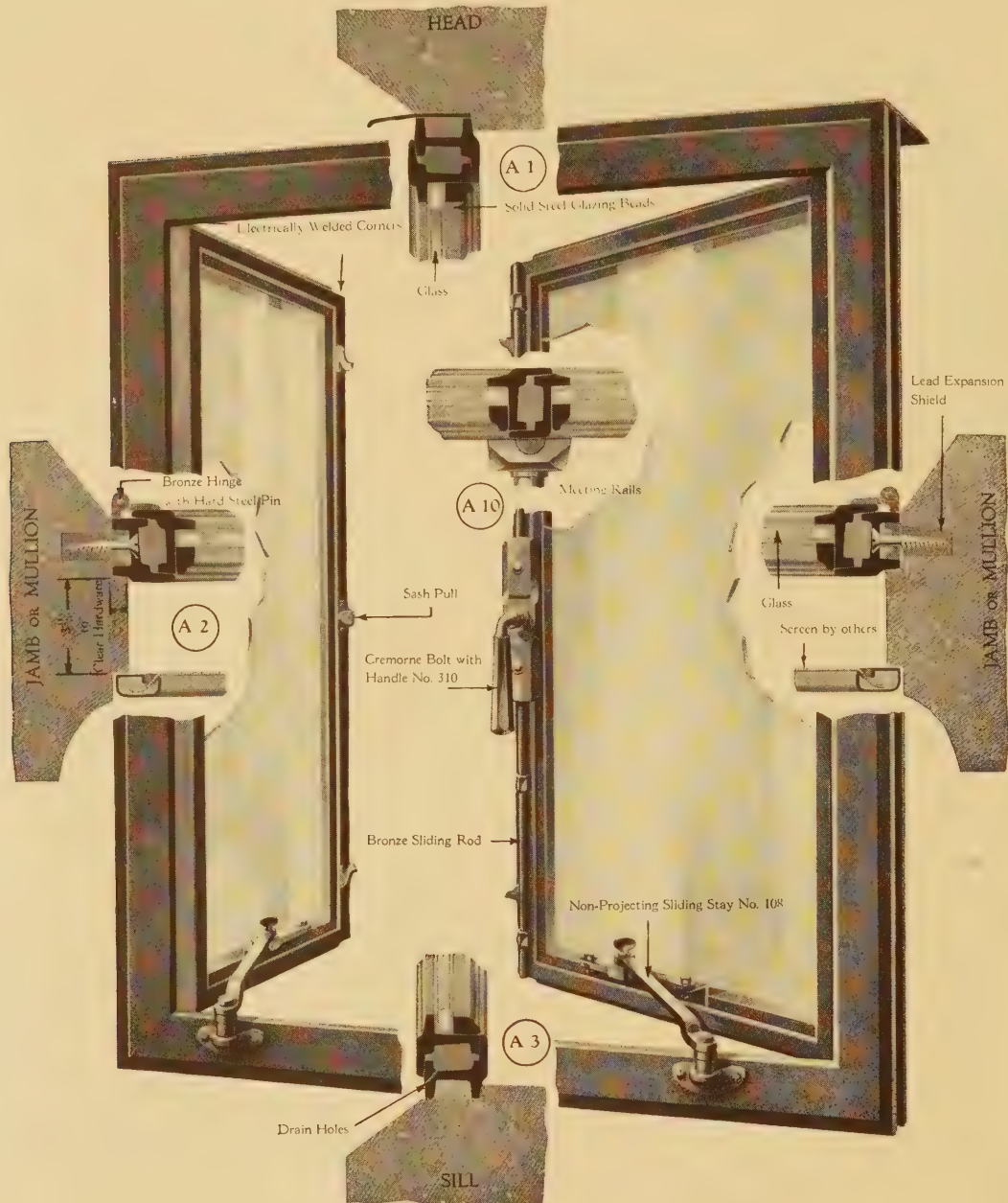
Walker & Ward, Architects

Top hinged transom casements when within reach and fitted with peg stay admit of ready and efficient means of ventilation without interfering with shades or curtains.

Screens may be used provided the casement is opened to full extent of the peg stay.

METHOD A—Cut Stone Details

Folding Casement—Open Outward



Folding casements or French windows may be made to open inward or outward. Under certain circumstances, to fill a wide masonry opening, folders may be used instead of two side hinged with fixed meeting rail.

METHOD A—Cut Stone Details

Folding Casements—Open Outward

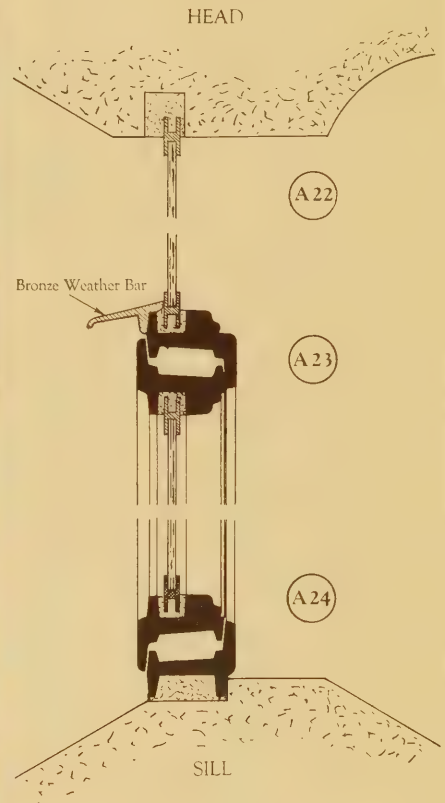


AUGUST KOCH RESIDENCE, CHICAGO, ILL.

Sidney Lovell, Architect

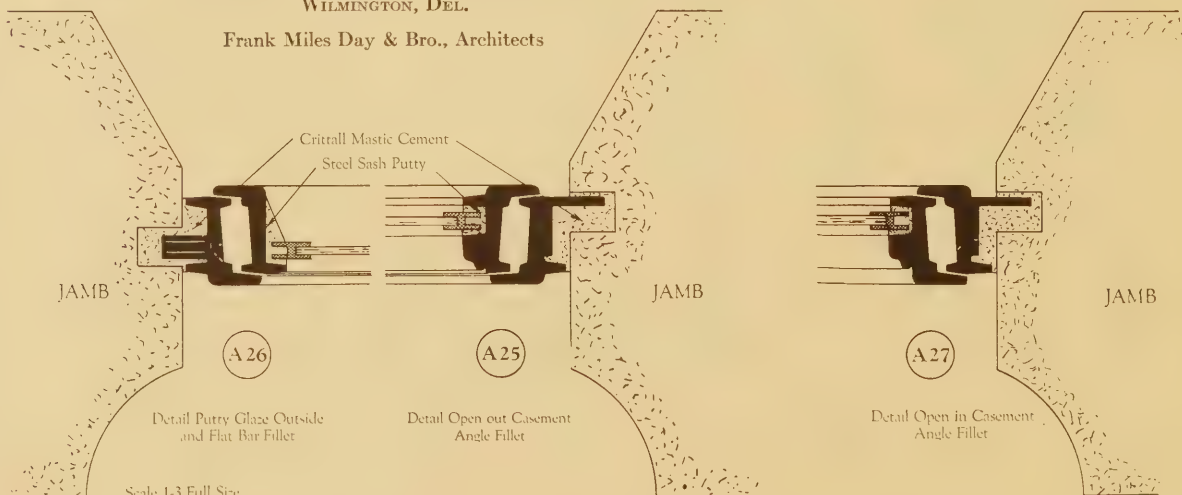
METHOD A—Grooved Cut Stone Details

Casements—Side Hinged, Open Outward



TRINITY CHURCH PARISH HOUSE
WILMINGTON, DEL.

Frank Miles Day & Bro., Architects



Above details are frequently adopted in ecclesiastical work and particularly where casements glaze over in trefoil or gothic heads. Detail A 26 is alternative at jamb for putty glaze outside. It will be noted also that flat bar fillet is shown as alternative to the angle. Detail A 27 shows section of open in casement at jamb.

METHOD A—Grooved Cut Stone Details

Casements—Side Hinged, Open Outward



CHURCH OF THE EVANGEL
BROOKLYN, N. Y.
Nelson and Van Waggonen, Architects

The use of steel casement windows in church buildings and memorial structures of a similar nature is recognized by leading architects as absolutely necessary in carrying out their design to give that feeling so vital in structures of this character.

The Crittall Solid Steel Casement Window sets directly into the stone work, thus eliminating all unsightly wood trim and maintaining the narrow sight lines between masonry and glass. Where tracery work

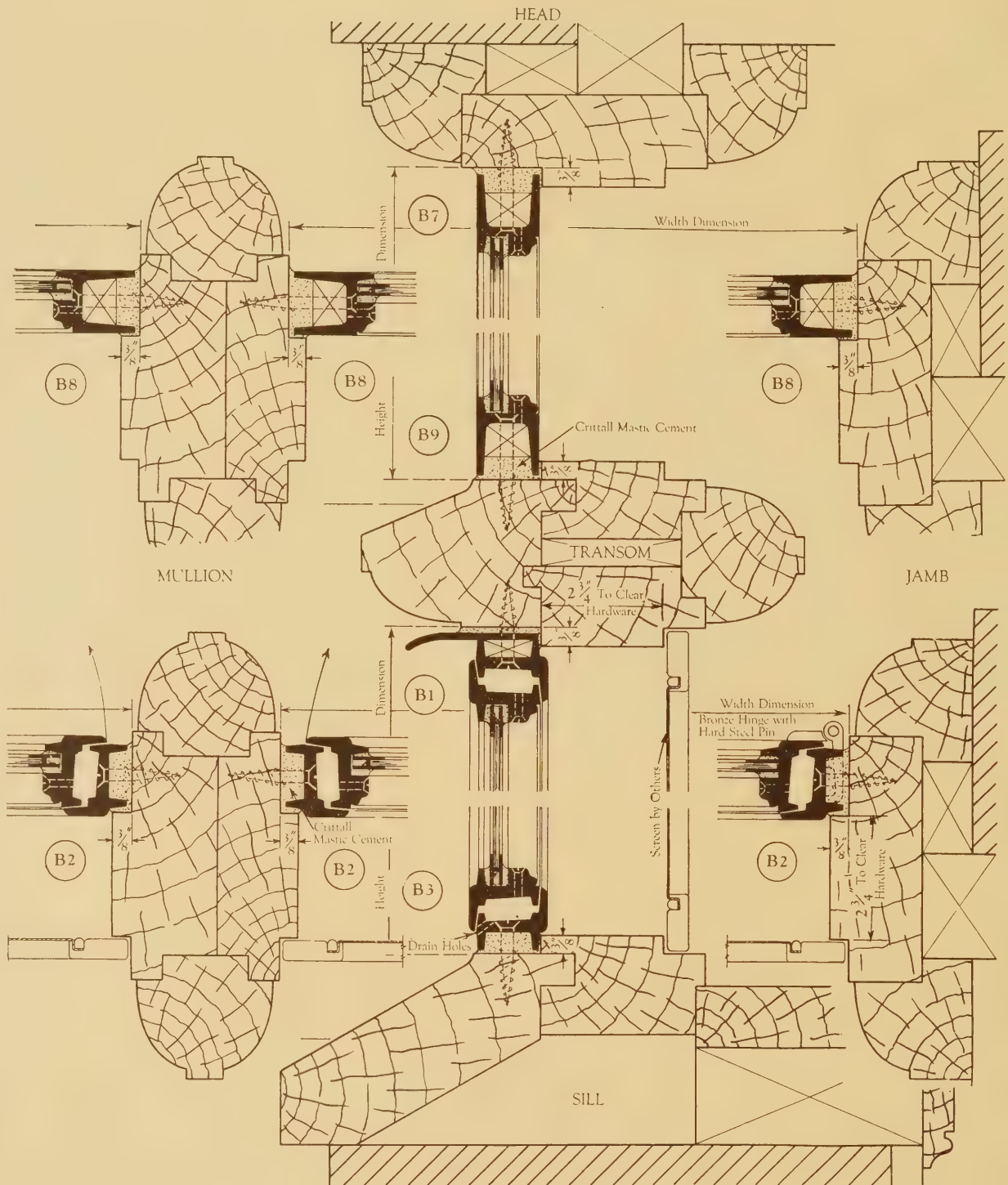
occurs, the glass can be glazed directly into the stone tracery and into the head of the steel sash, thus maintaining all glass in the same plane. (See details on opposite page.)

Crittall Casements are guaranteed wind and weather-proof when properly erected and glazed.

The hardware used on Crittall Casements is of solid bronze of our own manufacture and design and is in keeping with the surroundings in work of this nature.

METHOD B—Wood Frame Details

Casements—Side Hinged, Open Outward; Fixed Light Transom



The above details are typical for residence work; $\frac{3}{8}$ " rebates and $2\frac{3}{4}$ " setback for screens are essential. Other features as to design of mullions and framing may be as desired.

METHOD B—Wood Frame Details

Casements—Side Hinged, Open Outward; Fixed Light Transoms



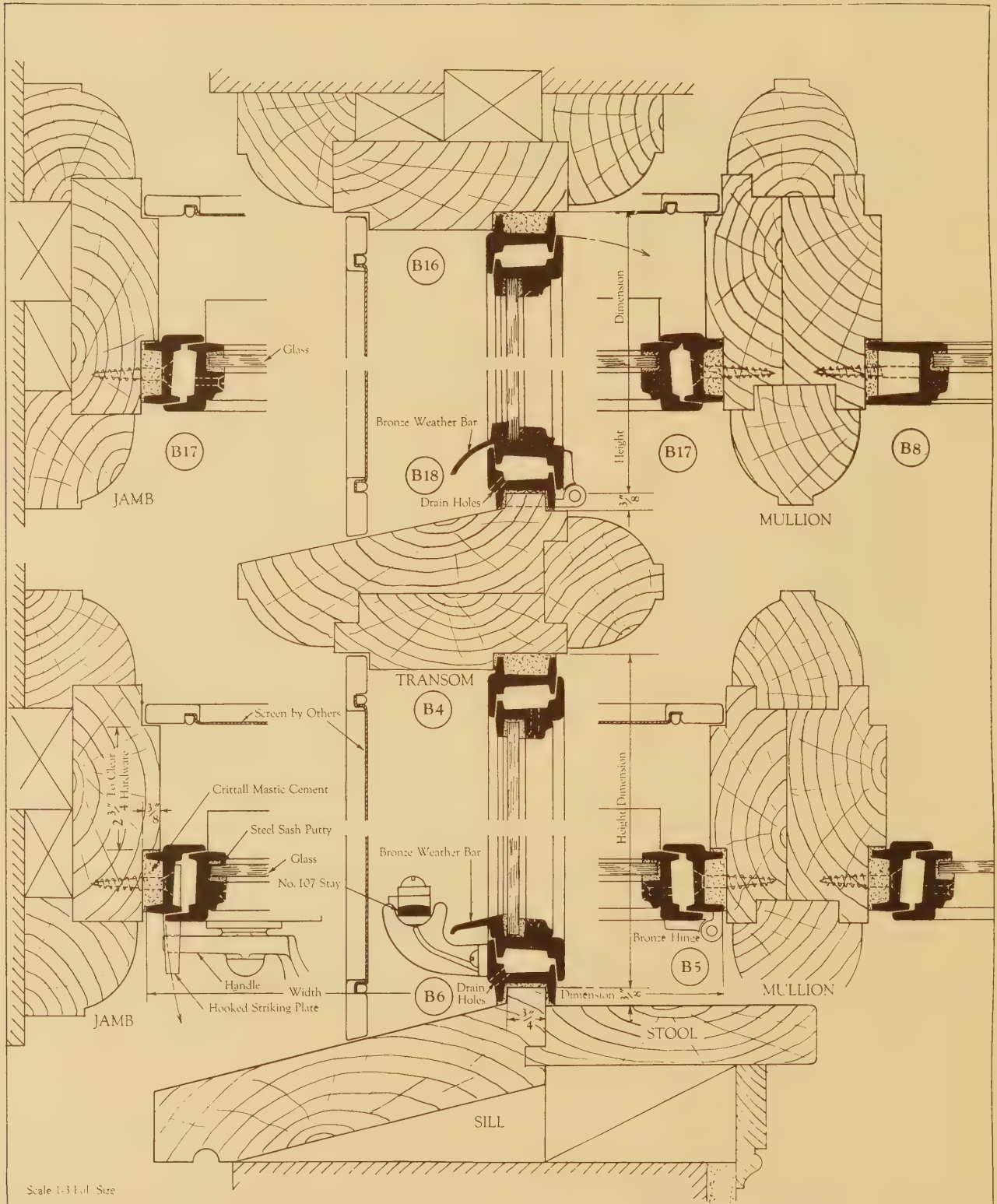
A. L. CAHN RESIDENCE, HARTSDALE, NEW YORK

Alfred Hopkins, Architect

This photograph illustrates effectively the charm of casement windows properly draped. Note the silhouette effect of the handles and plates, distinctive to steel casements. Sash are glazed with leaded glass, and open out with metal fly screens on the inside.

METHOD B—Wood Frame Details

Casements—Side Hinged, Open Inward; Transom Casements Bottom Hinged



The above details are typical for residence work; $\frac{3}{8}$ " rebates and $2\frac{3}{4}$ " setback for screens are essential. Other features as to design of mullions and framing may be as desired.

METHOD B—Wood Frame Details

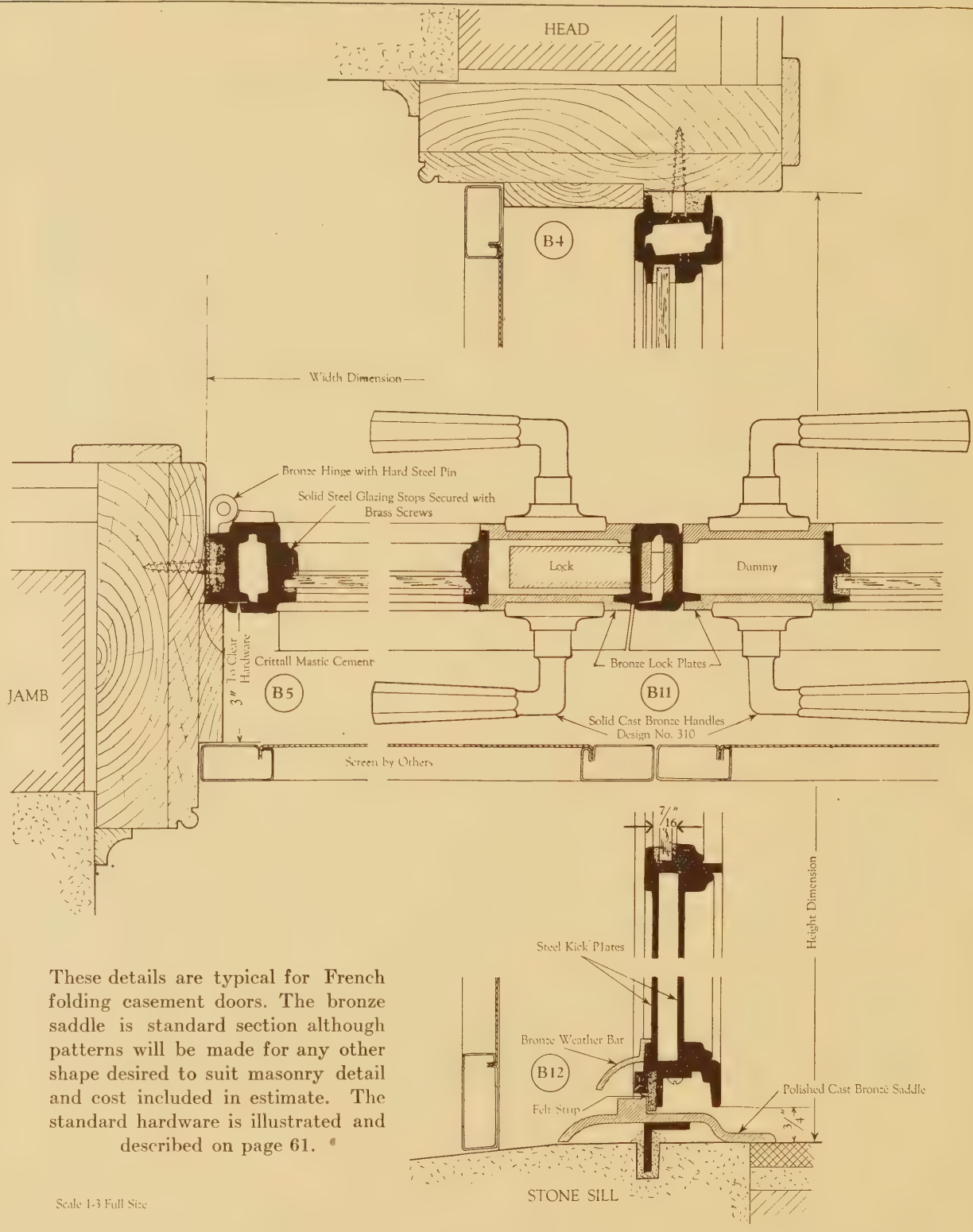
Casements—Side Hinged, Open Inward
Transom Casements Bottom Hinged



OFFICES OF SCHENCK & WILLIAMS, ARCHITECTS
DAYTON, OHIO

METHOD B—Wood Frame Details

Folding Casement Doors—Open Inward



**Bank Windows—Casements at Sill Level Pivoted Vertically close to Jamb,
all other lights stationary**



WAYNE COUNTY & HOME SAVINGS BANK BRANCH
DETROIT, MICHIGAN
Albert Kahn, Architect

THE accompanying photograph illustrates the tendency of modern banks to secure light, clean and well-ventilated interiors. Bankers of experience demand high ceilings, large windows and extensive glass area, which results in interiors as well lighted as if there were no enclosing walls.

The Crittall Solid Steel Window forms a perfect enclosure for these large openings and

means that rarely artificial light will be required in the working quarters. They are weather-proof and have very low upkeep, other than an occasional coat of paint; they also give an air of security greatly to be desired in banks.

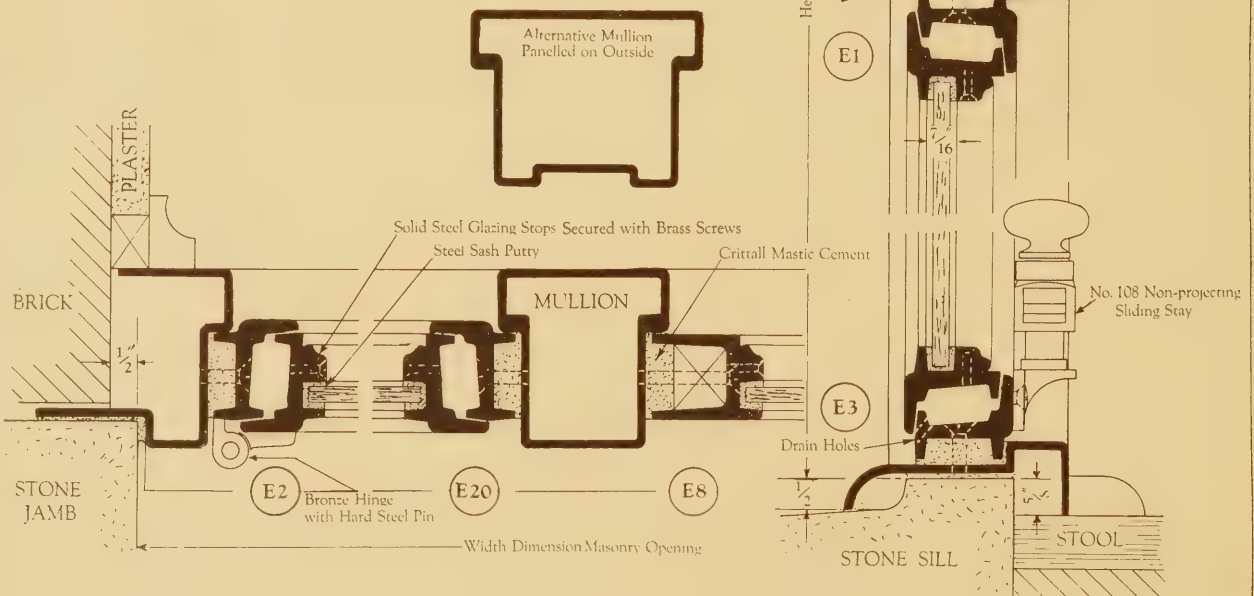
Our experts will gladly confer with the architect or building committee upon request.

METHOD E—Hollow Metal Frame Details Without Screens

Casements—Side Hinged, Open Outward; Transoms Pivoted Horizontally



JACKSON COUNTY COURT HOUSE
HOLTON, KANSAS
T. W. Williamson & Co., Architects



Scale 1-3 Full Size

METHOD E—Hollow Metal Frame Details Without Screens

Casements—Side Hinged, Open Outward; Transoms Pivoted Horizontally



JACKSON COUNTY COURT HOUSE
HOLTON, KANSAS
T. W. Williamson & Co., Architects

HOLLOW metal frames, mullions and transom bars in conjunction with steel casements permit of similar treatment in the matter of wide surfaces and deep shadow lines to cast iron at a saving in cost.

A wide range in design is possible with this type of material and we invite architects to submit their problems to our engineers.

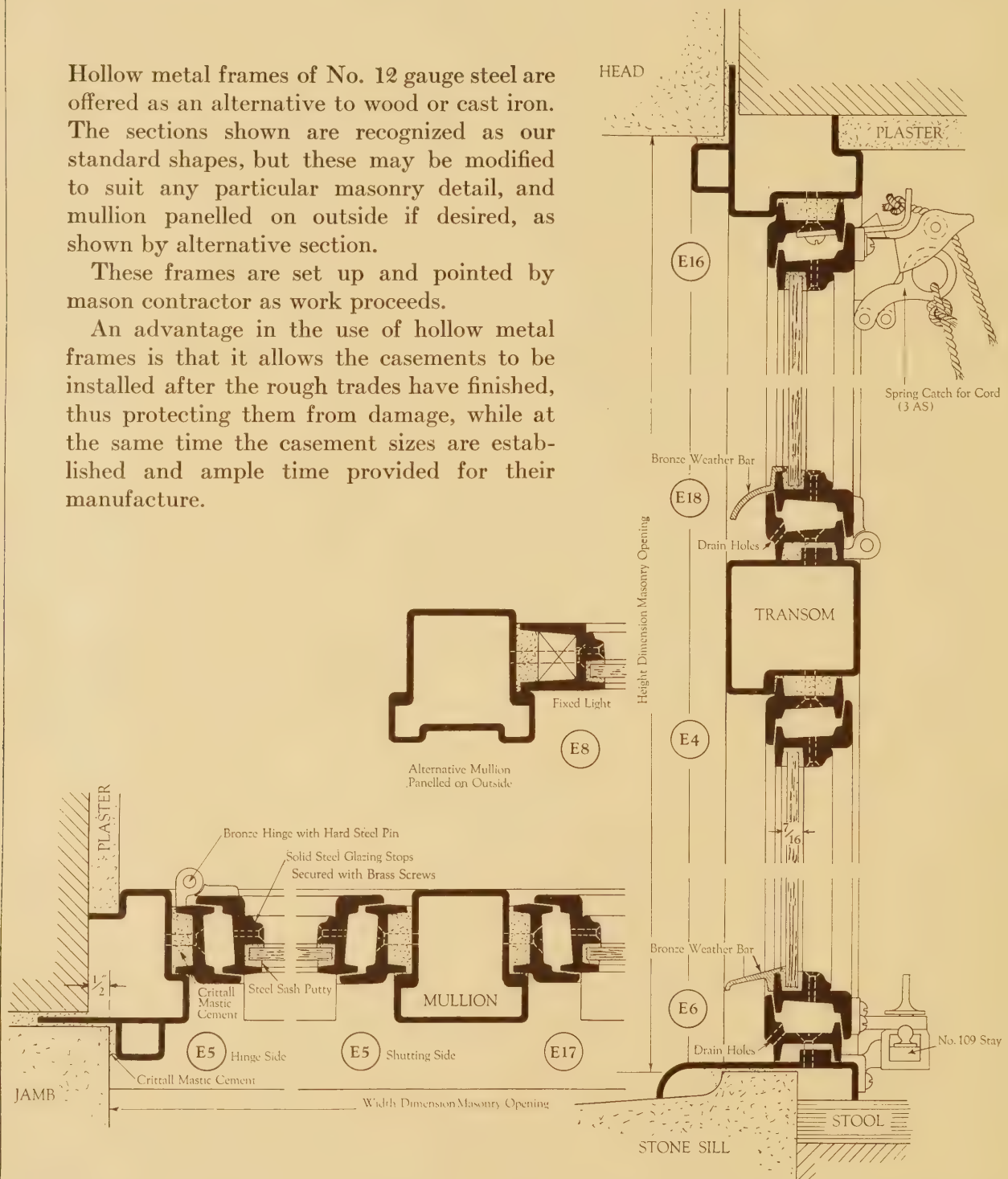
METHOD E—Hollow Metal Frame Details Without Fly Screens

Casements—Side Hinged, Open Inward; Transom Casements
Bottom Hinged

Hollow metal frames of No. 12 gauge steel are offered as an alternative to wood or cast iron. The sections shown are recognized as our standard shapes, but these may be modified to suit any particular masonry detail, and mullion panelled on outside if desired, as shown by alternative section.

These frames are set up and pointed by mason contractor as work proceeds.

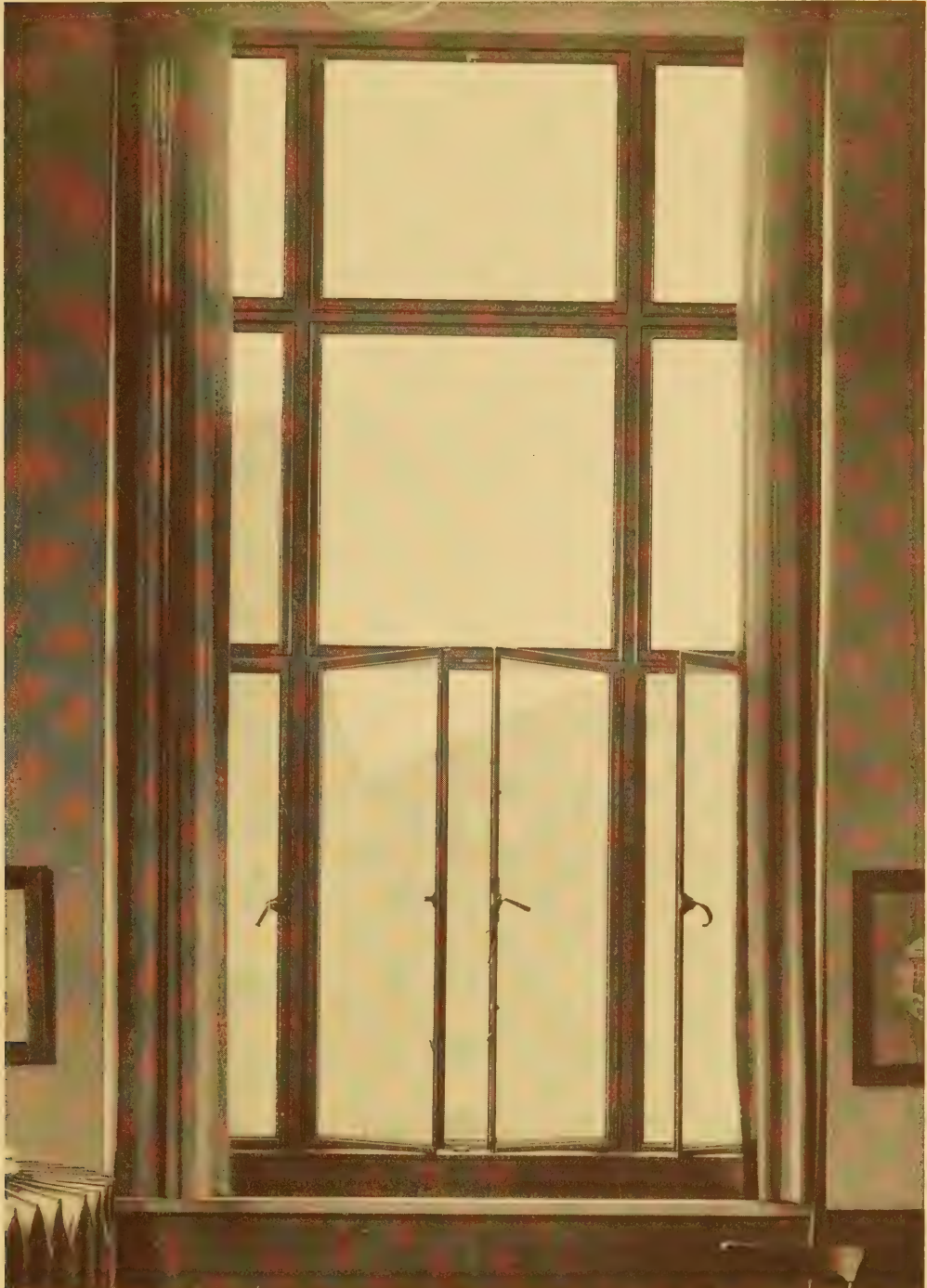
An advantage in the use of hollow metal frames is that it allows the casements to be installed after the rough trades have finished, thus protecting them from damage, while at the same time the casement sizes are established and ample time provided for their manufacture.



Scale 1-3 Full Size

METHOD F—Hollow Metal Frames Rebated for Screens

Casements—Side Hinged, Open Inward
Transom Casements Bottom Hinged



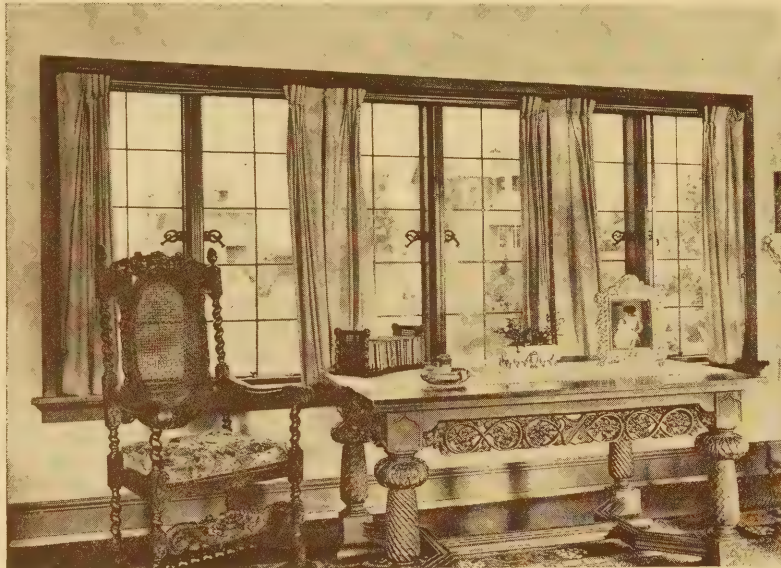
BUHL SONS COMPANY OFFICES

DETROIT, MICHIGAN

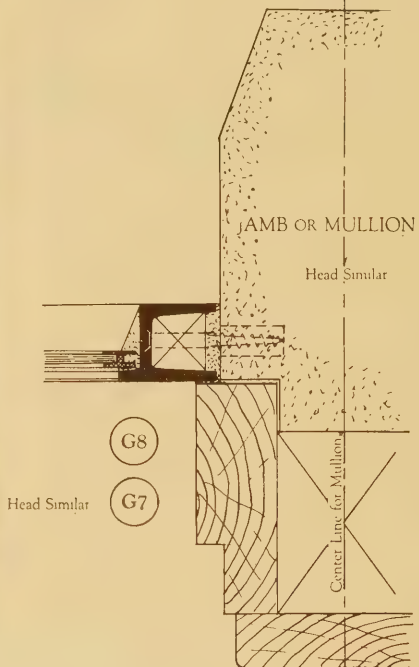
John Scott & Co., Architects

METHOD G—Cut Stone and Wood Trim Details

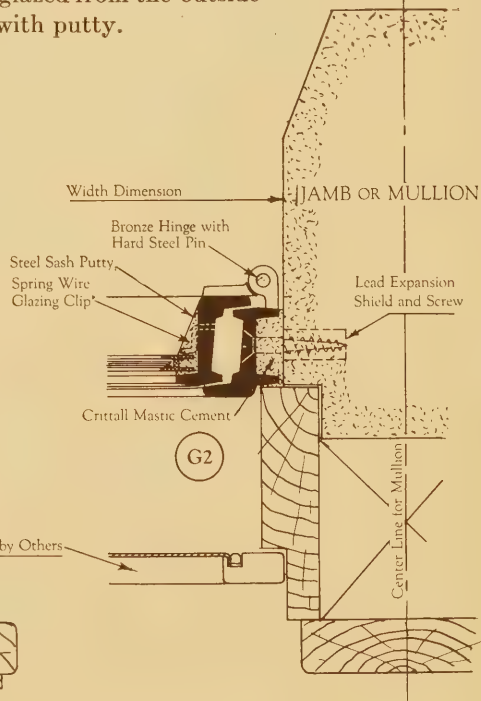
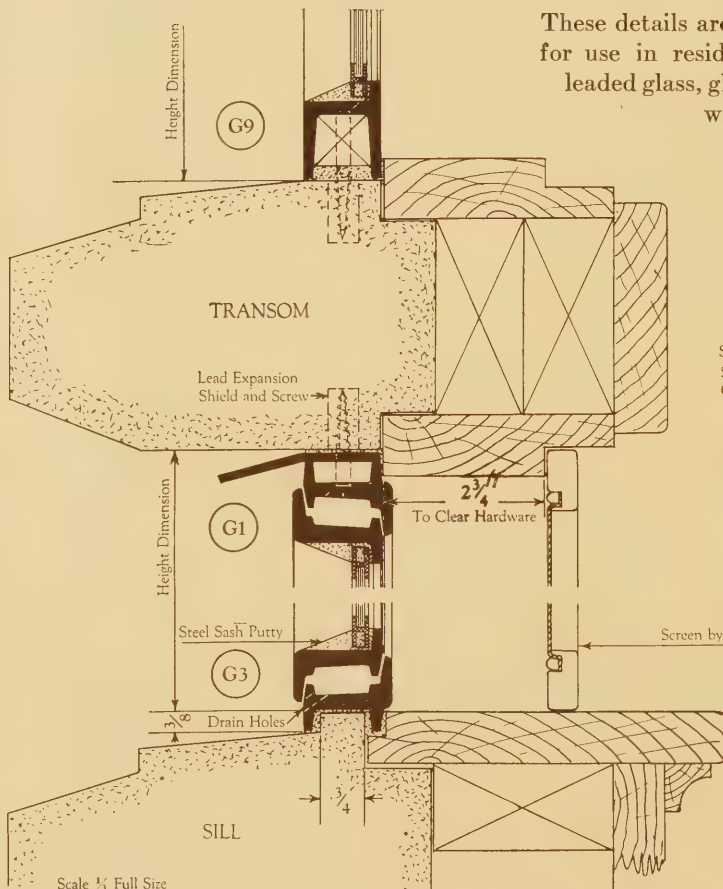
Casements—Side Hinged, Open Outward



LAMSON RESIDENCE
CINCINNATI, OHIO
G. C. Burroughs, Architect



These details are particularly adaptable for use in residence work. They show leaded glass, glazed from the outside with putty.



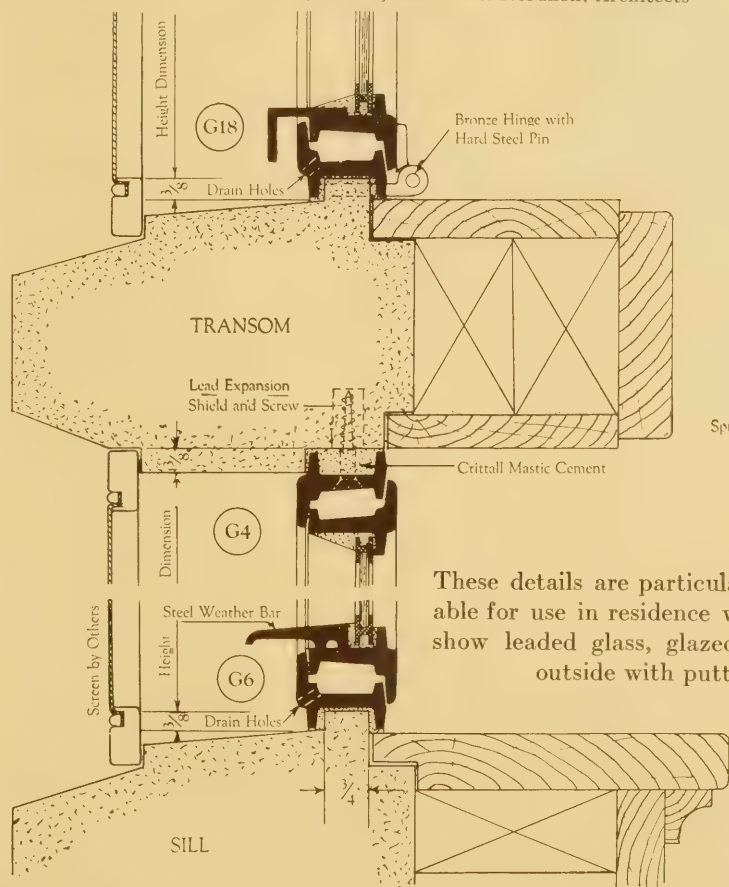
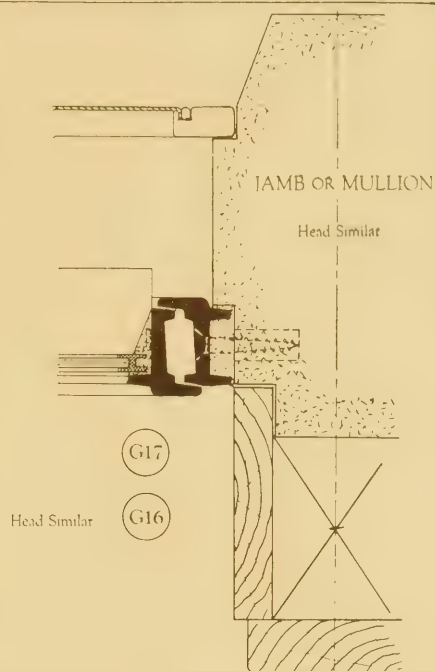
METHOD G—Cut Stone and Wood Trim Details

Casements—Side Hinged, Open Inward; Transom Casements Bottom Hinged

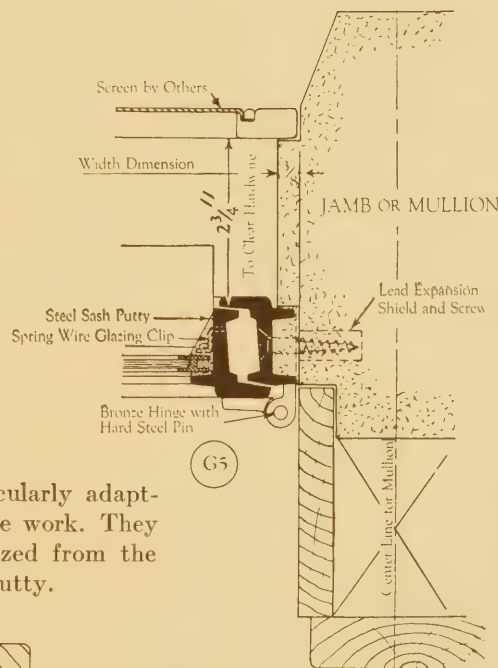


Geo. S. Mills Residence

Mills, Rhines, Bellman & Nordhoff, Architects



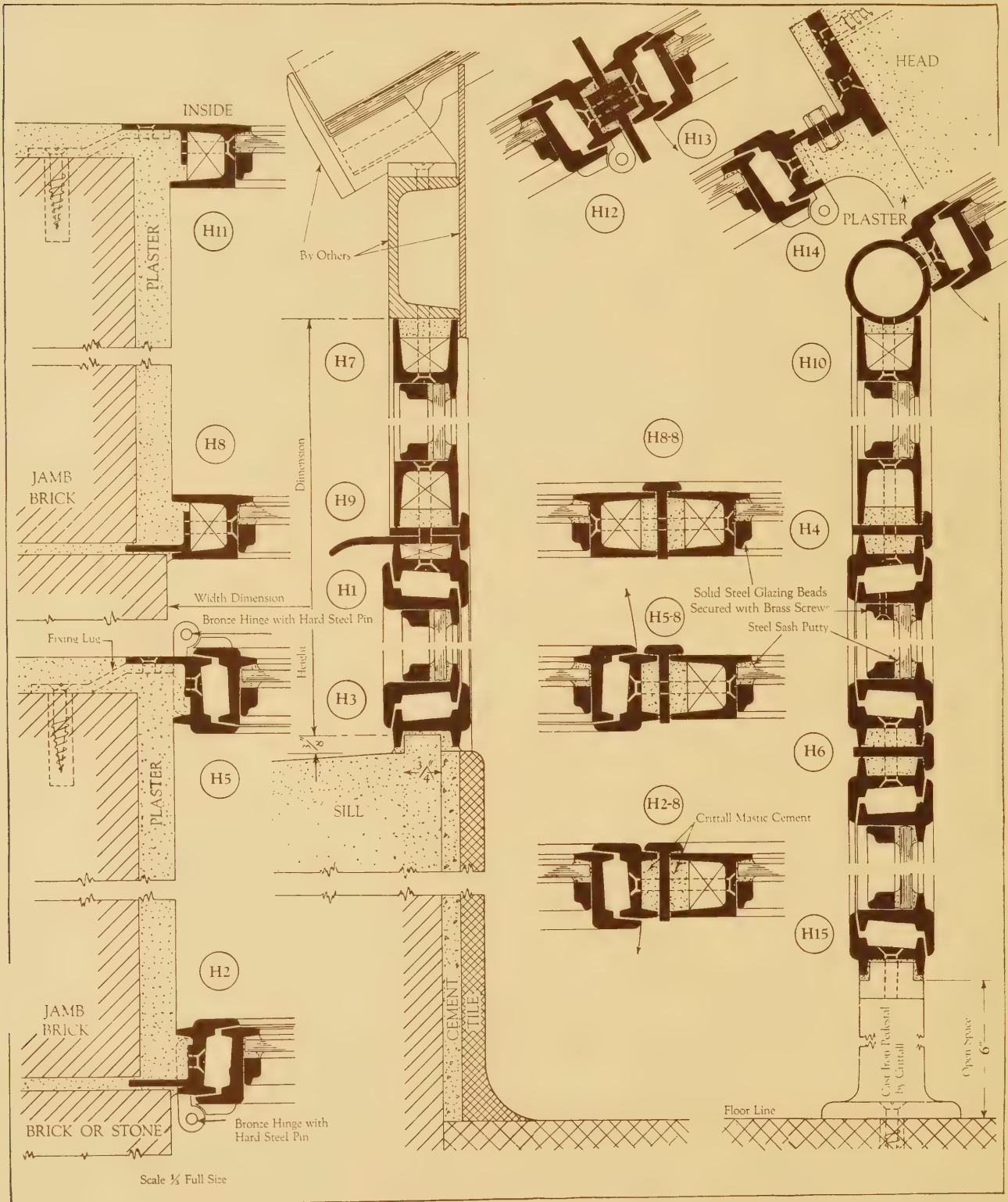
These details are particularly adaptable for use in residence work. They show leaded glass, glazed from the outside with putty.



Scale $\frac{1}{8}$ Full Size

METHOD H—Hospital Details

Double Operating Room Window and Ceiling Light



See "Index to Details" for location of sections

METHOD H—Hospital Details

Double Operating Room Window and Ceiling Light



OPERATING ROOM—HENRY FORD HOSPITAL, DETROIT, MICHIGAN

Wm. B. Stratton, Architect, Detroit.

Double windows with ceiling light and skylight above.

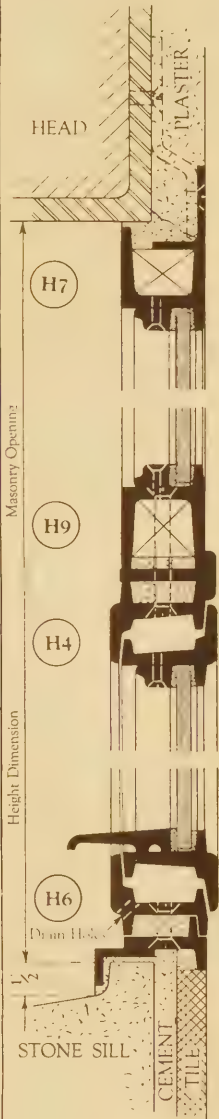
Skylight not furnished by Crittall Casement Window Company.

Crittall Solid Steel Casement Windows are a practical necessity in the modern hospital operating room, providing as they do, the maximum amount of light area, with freedom from wide mullions and the consequent shadows so undesirable but unavoidable in wood windows and being at the same time weather-tight. They are made either as double or as single sash, depending upon requirements and conditions.

Skylights should be furnished by skylight manufacturers. The Crittall Steel Window is designed to withstand the weather conditions for vertical windows only and is not adapted for skylight work where special sections, providing for the carrying off of condensation on the under side of the glass and having a special method of glazing to insure weather tightness, are necessary.

METHOD H—Hospital Details

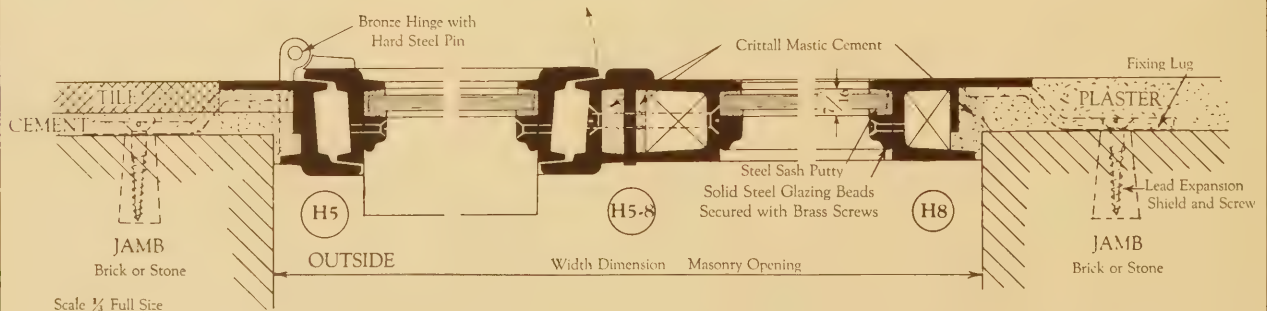
Single Operating Room Window



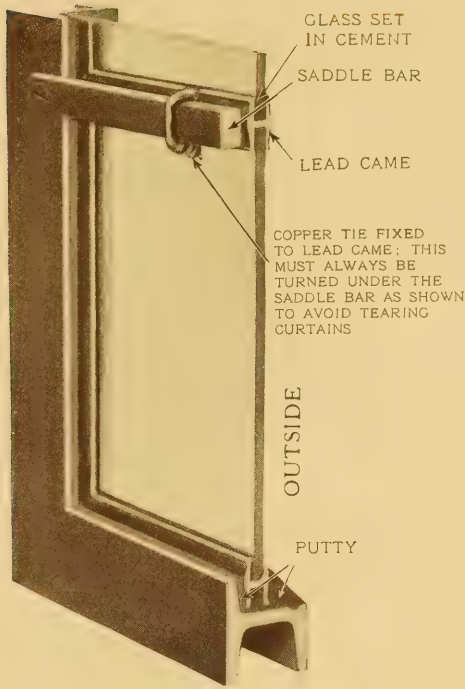
HARPER HOSPITAL, DETROIT, MICHIGAN

Malcolmson & Higginbotham, Architects

Single sash—Note obscure glass in lower portion of opening. Large rolling shade on exterior is used to control light. Sash is flush with interior wall to eliminate ledges where dust will collect. Note large glass area and freedom from objectionable shadows. The mullions are $3\frac{1}{2}$ inches glass to glass.

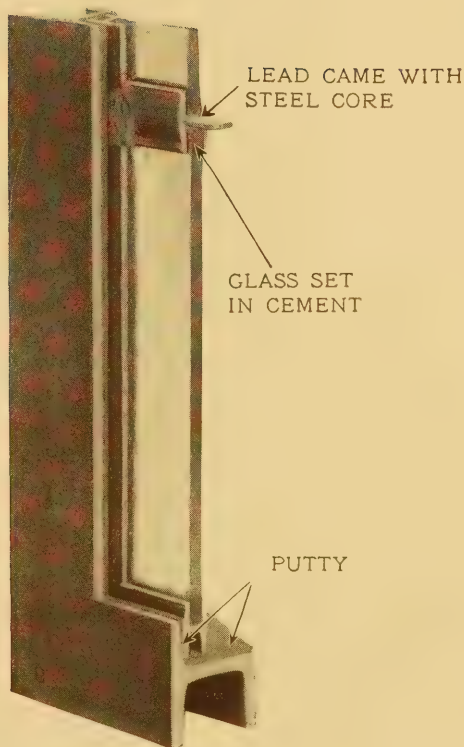


Lead Glazing

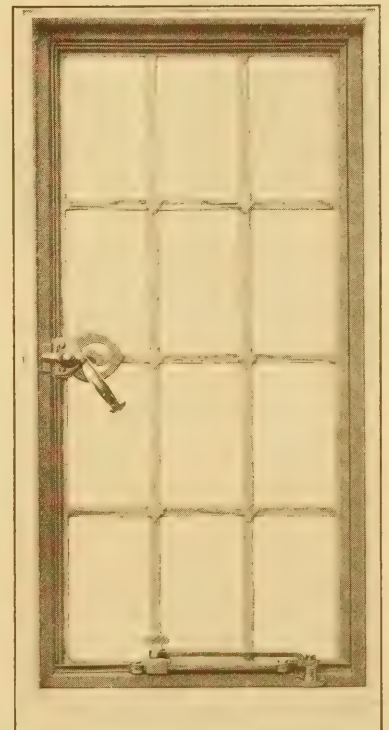


ONE of the most characteristic features of English architecture is the use of leaded glass with mullioned windows. The best quality of leaded glass should be used, as faulty glazing is frequently the real cause of leakage for which the casement is blamed.

All leaded glass must be reinforced with either saddle bars or reinforced cores in the leads; the latter method is preferable as saddle bars are unsightly. Lead comes should not be less than $\frac{1}{2}$ " wide as there must be sufficient cement bedding to prevent leakage. Only the best quality of leaded glazing should be considered in connection with metal casements.

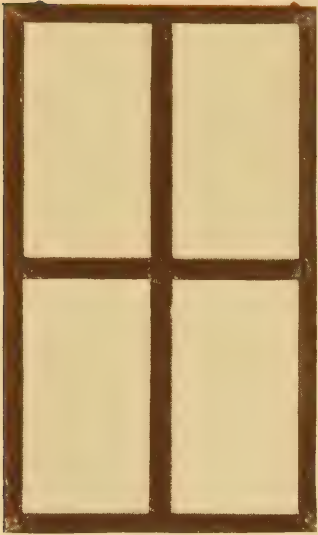


WHERE an old rustic effect is wanted to carry out extreme English architecture, we suggest an antique style of came as shown in illustration "C". The comes are made of zinc washed with lead; they are wide, give ample space to cement the glass and are less subject to breakage than the lead came.



"C"

Lead Glazing



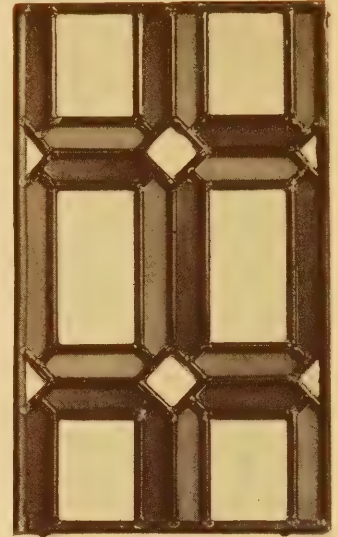
No. 1

D. S. A. selected in rectangular panes with $\frac{5}{8}$ " beaded lead comes steel or brass cored.



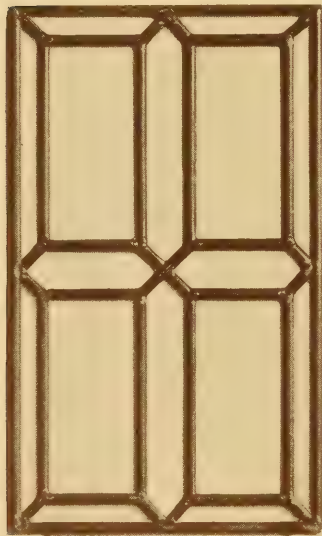
No. 2

Transom light with medallion, lead covered zinc comes which are sufficiently stiff to require no reinforcement.



No. 3

Ambetti in two colors set in $\frac{1}{4}$ " beaded lead.



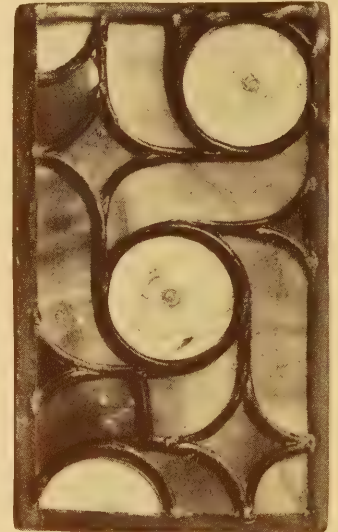
No. 4

Twenty-one ounce English sheet in $\frac{5}{16}$ " rounded lead comes.



No. 5

White Ambetti in $\frac{1}{2}$ " beaded diamond panes.



No. 6

Norman slabs in two colors with Roundels set in $\frac{5}{16}$ " round leading.



The usual house installation takes rectangular glazing as "C" page 53 or No. 1 above, with occasional No. 5. Heraldry, special coats of arms and medallions only occur, of course, in exclusive work.



Hardware

THE hardware used on all Crittall Windows is of a quality and finish in keeping with the product, and in comparing prices with those of other manufacturers the quality of Crittall hardware must be borne in mind; unless specifically stated in our quotations all prices include for STANDARD HARDWARE as shown and described on pages 56 to 61 inclusive.

SPECIAL HARDWARE is illustrated on pages 62 and 63 and is not kept in stock. Operating gear, pages 30, 34 and 36 is not included unless so stated in the formal quotation.

Design

The design of all standard hardware has been carefully worked out on engineering lines so that utility and good proportion are combined, and in no case has strength been sacrificed to appearance.

We do not boast of a large range of patterns, as our standard designs are usually found suitable, but, where some special style of interior decoration must be followed, we are willing to carry out an architect's ideas and thus place our designers at his disposal.

Materials

Standard hardware is made of Government analysis bronze or malleable iron. All brackets are process welded to the frames, no brazing being allowed. Special fittings are cast bronze or hand forged iron.

Finish

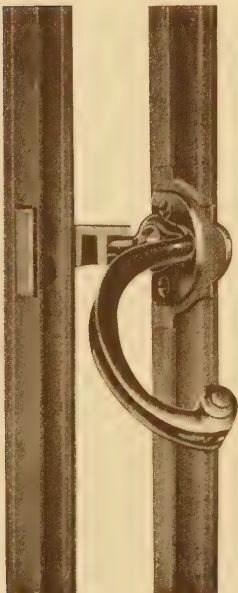
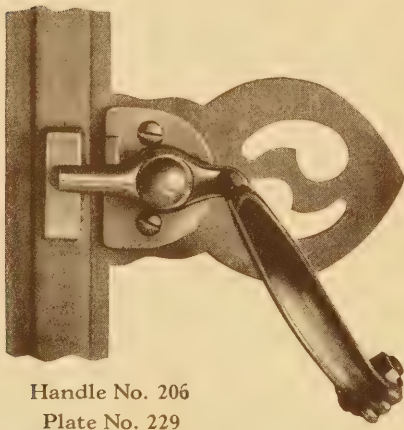
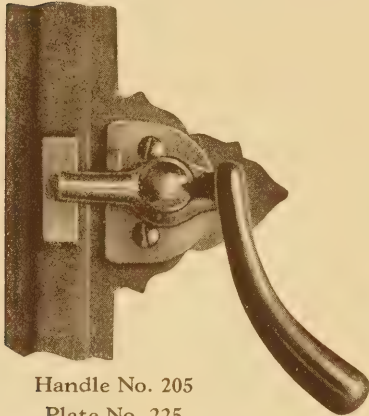
Our quotations include for polished bronze dark coinage color; this color is obtained by a special process of our own without the use of CHEMICALS or PLATING. All other finishes mean plating, which we believe is bad practice as the chemicals used will work out of the joints at a future date. Malleable iron hardware is supplied natural surface dead black color. Plating is extra.

Fixing

All standard fittings are marked to correspond with the casements to which they have been fitted in the shop, and are sent loose for assembling after the windows are erected and glazed. This eliminates theft or damage before the building is occupied. The working parts of all fittings should be occasionally oiled to obtain best results.

Standard Hardware

Single-Throw Handle



HANDLES 205 and 206 are the only styles kept in stock; they are interchangeable and have the same selling price. The plates to which they are attached are of solid steel and process welded to the casement.

Any handle can be supplied on either plate. SET SCREENS $2\frac{3}{4}$ " FROM FRAME TO CLEAR HANDLES.

Two-throw handles are fitted to all side-hung or vertically center-hung casements over 5' 0" in height to insure the frame making proper contact all around when closed.

Any standard pattern handle can be used; the connecting rod is $\frac{3}{8}$ " round wrought iron painted the same color as the window.

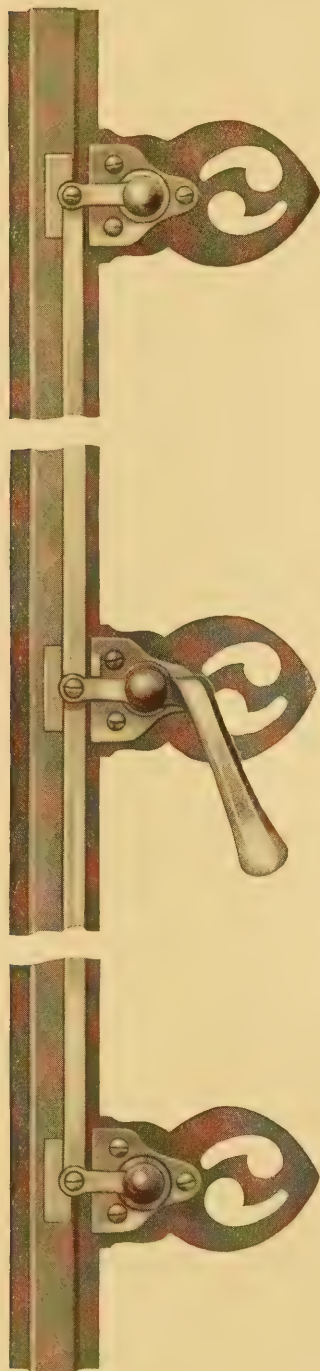
Three-point striking plate can be attached to any type of Universal Casement, except folders and transoms, to give a small amount of ventilation without rattling. The fitting is made of unpolished bronze to avoid corrosion and gives no unsightly internal projection. It is supplied only as an EXTRA.

Two-Throw Handle



Standard Hardware

Three-Throw Handle



Three-Throw Handle No. 211
mounted on No. 229 Plate

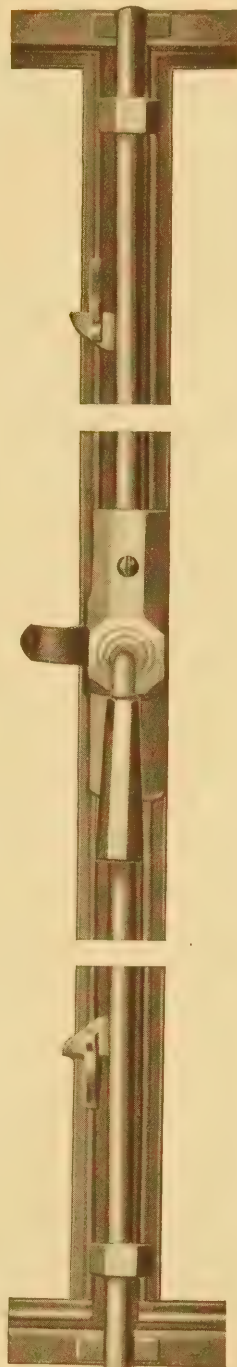
Three-Throw Handles are fitted to all side hinged or vertically center-pivoted casements over 7' 0" in height to insure the frame making proper contact all around when closed. Standard equipment is handle No. 211 mounted on either No. 225 or No. 229 plate.

Connecting rod is $\frac{1}{4}''$ x $\frac{7}{16}''$ wrought iron painted the same color as the window.

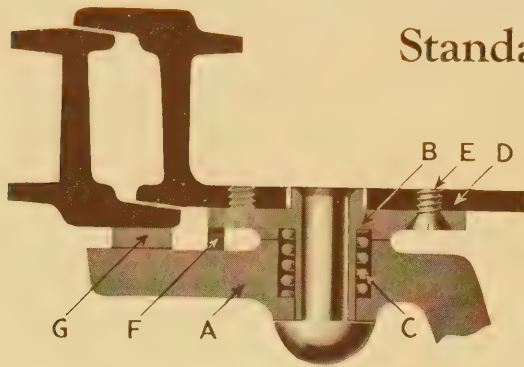
Vertically pivoted casements have handle both sides when necessary.

Cremorne Bolts are used on folding casements opening either in or out and standard equipment includes No. 310 handle shown. Other designs of handles can be furnished at an extra cost.

Cremorne Bolt



Cremorne Bolt with
Handle No. 310



Standard Hardware

The handle (A) is mounted on a solid bronze plate (B) enclosing a strong coil spring (C); this ensures a uniform, easy fit, neither stiff nor loose.

The bronze plate is fastened to the steel handle plate (D) by three brass screws (E).

The nose (F) on the bronze plate prevents the handle turning beyond the horizontal position. (G) is the beveled bronze striking plate riveted to the section.

This illustration shows the method of attaching handles to Universal Casements.



Stays

Peg Stay No. 107

Standard equipment for inward opening casements and included in all estimates unless No. 109 is specified. Supplied in all lengths from 6'' to 14'' to suit any size window. The

knuckle is provided with a spur to keep the stay from falling on the sill when not in use. A similar design may be used for outward opening casements. Allow $2\frac{3}{4}$ '' for screens to clear.

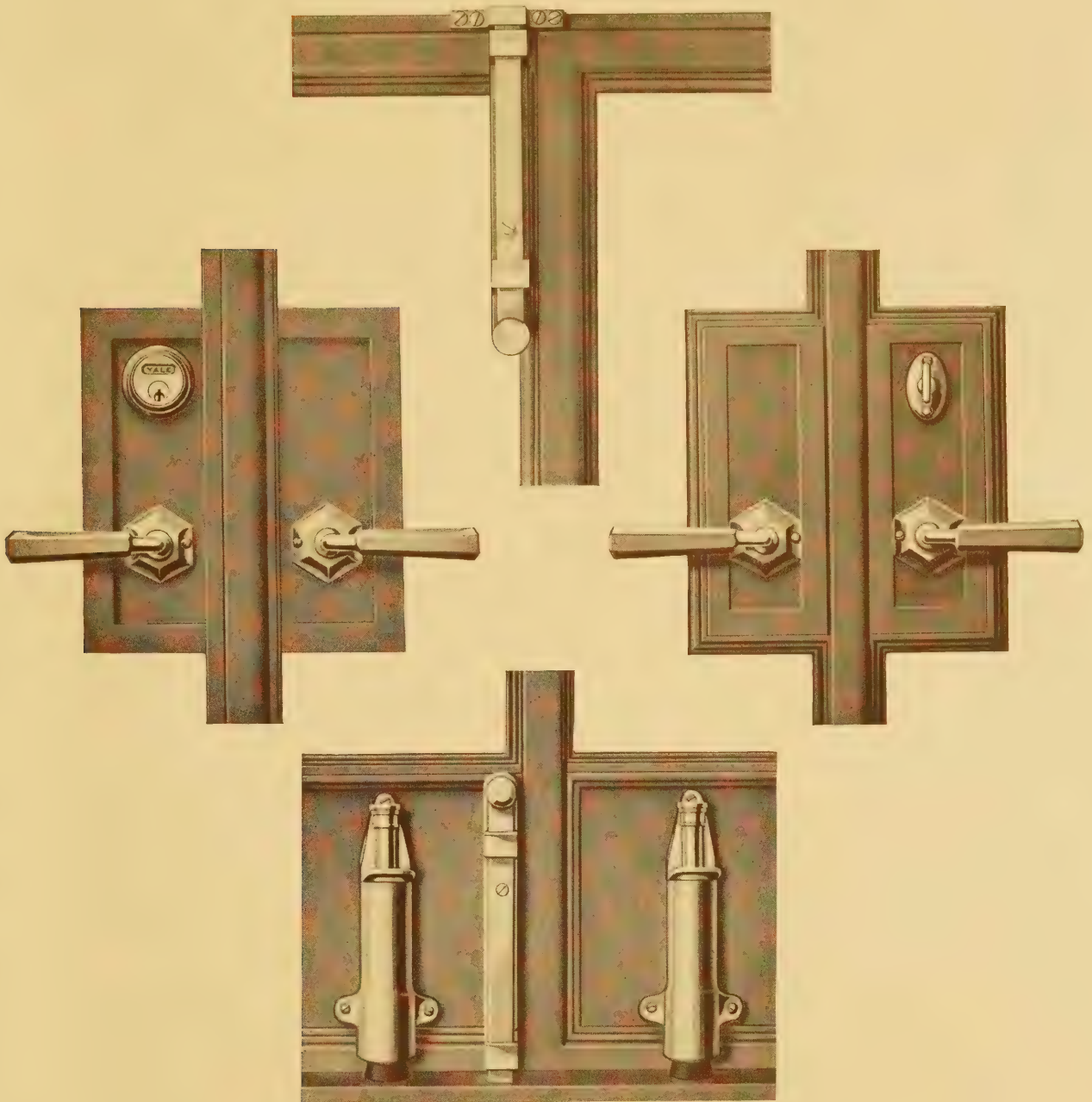


Sliding Stay No. 108

Standard equipment for outward opening casements and included in all estimates unless otherwise specified. This fitting has the advantage of giving no internal projection when casement

is open to interfere with blinds or screens and also permitting any adjustment. The stay projects $1\frac{7}{8}$ '', a smaller distance than a handle. Every part of the stay is solid bronze.

Standard Hardware for Doors



THE above photographs illustrate complete set of standard hardware for folding doors with No. 310 design of handles.

Substitutions in the above will involve change in price. Top and bottom bolts may be omitted on single doors, also dummy lock casing and handles on folding doors.

Kick plates are usually 9" high. Our locks are

special hand made, costing double the price of the regular locks of commerce. The operation is latch bolt by lever handle from either side, except when outside lever handle is set by stops in face of lock. Dead bolt from inside by turn piece and both dead bolt and latch bolt by key from outside. The handles can be set vertical if desired and the locks master keyed if so ordered. The size of the lock case is standard.

Special Hardware



302



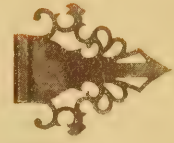
300



301



302



210



228



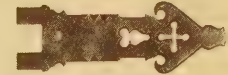
211



214



224



227



B-89



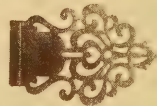
B-87



B-5c



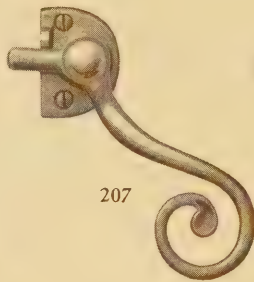
E



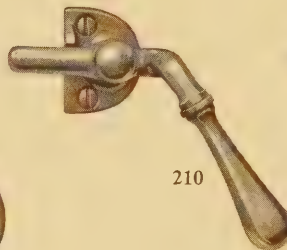
213



306



207



210

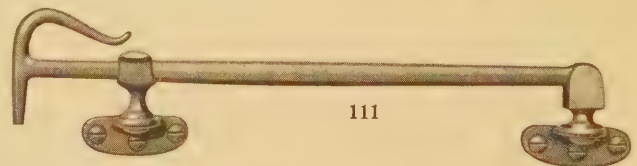


212

We have all the patterns for the handles and sill adjusters illustrated but none are kept in stock. The nature of the designs make them more expensive than our standard handles together with the fact that they are only made special in small quantities. These designs can only be supplied in bronze.



112

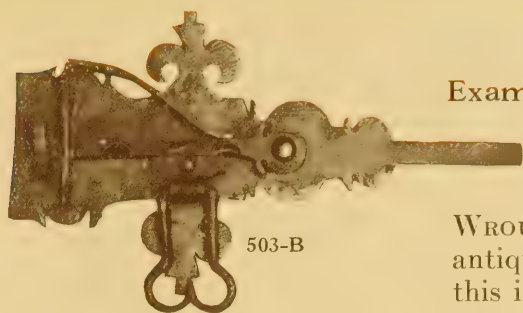


111

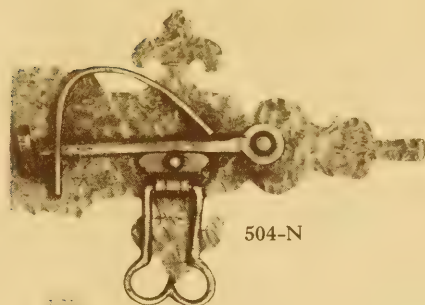
Special Hardware

Examples of Old Hand Forged Work and Modern Design

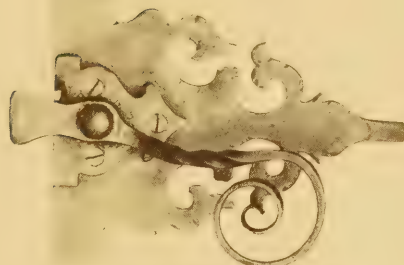
These Fittings are not kept in stock and are executed at the Braintree Works



503-B



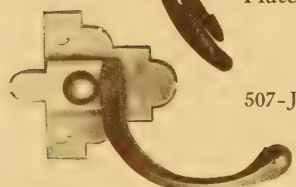
504-N



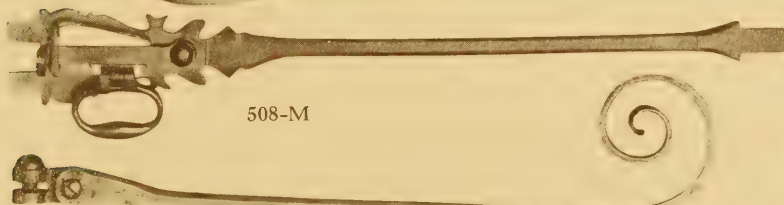
505-F



Handle—506-A
Plate—210



507-J



508-M



Forged—No. 107-G



Handle 244-C



Modified—206-H Bronze Handle
Forged—210 Plate

WROUGHT iron latch and wrought iron plate No. 503-B in antique style "Old Buckenham Hall" type, fire black finish; this is a fine example of old work in which the craftsman wrought all parts from the solid with only such tools as were available at that period, namely, fire, hammer and chisel. This handle and latch are not submitted from the standpoint of utility but to the architect who wants all the expression and feeling of antique work executed by craftsmen who are devoting their entire lives to this end.

Wrought iron latch and wrought iron plate No. 504-N of the same general style as 503-B but modified by the use of present day tools. The latter design is drawn out under a hammer, whereas this design is cut from a solid plate. We believe it is better hardware, although not a correct example of old work. This fitting is supplied bright armour finish unless otherwise specified.

We offer No. 505-F to architects who want the finest example of modern wrought work known as the "Lord Northcliffe" type. This fitting can be supplied painted dead black, fire black or bright armour finish; the latter finish is the only one we believe suitable for this class of fittings.

No. 506-A is a plain wrought handle on plate No. 210 finished in dull black paint.

The best commercial design in hand wrought hardware is No. 507-J, bright armour finish. It is known as the "Simpson & Aryton" type and also made in malleable iron; the plate must be wrought.

The forged bronze handle plate and saddle bar No. 508-M, used on Hever Castle, is a fine example of forged bronze work. Wrought stay No. 107-G is supplied with handle No. 505-F and made non-projecting in domestic work.

We show the modified No. 206 bronze handle on No. 210 plate to indicate the effect of such an application.



Cunard Building, New York, N. Y.

B. W. Morris, Architect Carrere & Hastings, Associate Architects



Wrigley Building, Chicago, Ill.

Graham, Anderson, Probst & White, Architects



Jay County Court House, Portland, Ind.

McLaughlin & Hulsken, Architects



C. K. G. Billings Residence, Montecito, Cal.
Francis T. Underhill, Architect



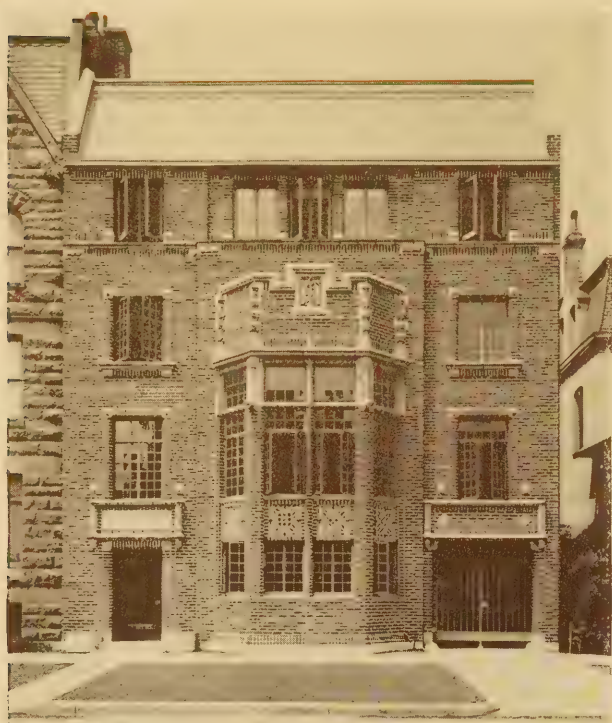
Bank of Italy, San Francisco, Cal.
Bliss & Faville, Architects



Virginia Trust Company, Richmond, Va.
A. C. Bossom, Architect



University of Michigan Library, Ann Arbor, Mich.
Albert Kahn, Architect



Office Building, Chicago, for
Perkins, Fellows & Hamilton, Architects



View in Patio, Spanish Type Residence,
Montecito, Cal.
Francis T. Underhill, Architect



Weld County Court House, Greeley, Colorado

W. N. Bowman, Architect



Side view of A. L. Cahn Residence, Hartsdale, New York

Alfred Hopkins, Architect



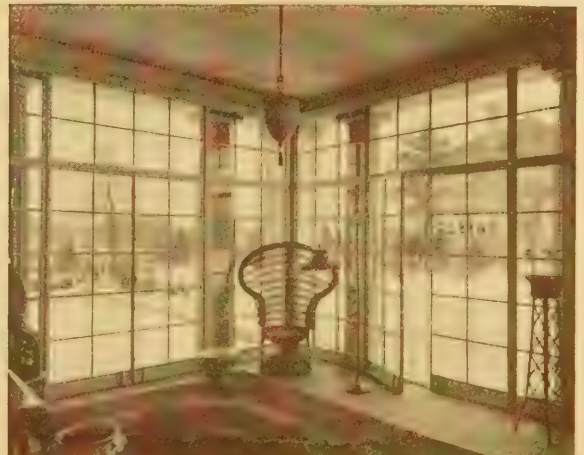
Cottage on the estate of Chas. M. Schwab at Loretto, Pa.
Murphy & Dana, Architects



Solarium, C. H. Wills Residence, Detroit
Albert Kahn, Architect



Lichstern Residence, Chicago
Arthur Heun, Architect



Solarium, McMillan Residence, Grosse Pointe
Albert Kahn, Architect



Immaculate Conception Convent, Ferdinand, Ind.
Victor Klutho, Architect



Russell A. Cowles Residence, Greenwich, Conn.
Rowe & Smith, Architects



St. Agnes Church, Cleveland, Ohio
J. T. Comes, Architect



B. F. Hermann Residence, Tarrytown, New York
Eugene J. Lang, Architect



W. J. Knapp Residence, Harrison, N. Y.
Godley & Haskell, Architects



Huguenot Memorial Church, Pelham Manor, N. Y.
Francis A. Nelson, Architect



Cunard Building, New York City
Ben. W. Morris, Architect
Carrere & Hastings, Associate Architects



First National Bank, Danville, Ill.
Mundie & Jensen, Architects



National Bank of Tacoma, Tacoma, Wash.

Sutton & Whitney, Architects



Quigley Preparatory Seminary, Chicago, Ill.

Zachary T. Davis, Architect



Interior Bankers Trust Bldg., New York City
Ernest Flagg, Architect



Main Office of Kresge Stores, Detroit
Smith, Hinchman & Grylls, Architects

